

Bryson Bost / Johnny Davenport

‘Allowing the maximum passage of light, as glass; translucent. Clear or limpid.’ By definition, ‘pellucid,’ evokes all kinds of thoughts, liquid ones, fleeting ones, and coupled with black, blackness, darkness, the void, great distances come to mind. Being a rather tactile, visual person, it’s challenging to equate that nothingness exists, and thus rather than leaving the void be the void, had to fill it with something. All kinds of shapes and patterns, and colors and textures to be exact. You could say, a circumstance of pulling back the curtains, or lifting the rug and what is found is all of the above. Acrylics and pigment inks were used, and they interwove formulaically, hopefully producing a beautiful sight, for what was seen under the high-powered equipment at the lab was certainly beautiful.

Imagine a sheet. This sheet is comprised of atoms stitched together in a honeycomb pattern that extends towards infinity in each direction. Electrons whiz along the sheet, all traveling the same speed. In the classroom, these electrons are drawn on paper as fixed dots with well-defined positions. In reality, however, physicists understand an electron’s speed and position to be tied together and encoded in a quantum cloud. Repelled by fellow electrons that also have negative charge, these clouds coalesce to form beautiful standing waves, circular orbits and geometric structures, which all depend on the cleanliness of the underlying honeycomb. The sheet I refer to is called graphene, an atomically thin carbon honeycomb pulled from a graphite crystal. Graphene is the symmetric yet chaotic focus of this piece. This carbon honeycomb offers humanity the unique opportunity to fill the void between our macroscopic lives and the counterintuitive yet ever-present quantum world.

Symmetry and symmetry breaking are at the heart of quantum mechanics and physics in general. Fundamental characteristics of nature that obey these symmetries such as particles, fields and energy are difficult to perceive within the framework of science alone. However, they can come roaring to life with new meaning with the aid of artistic expression. Through the power of mixed media, I feel that collaborating with Bryson has deepened my awareness and concept of empty space, probability and the symmetries in the crystals I study every day.

Physicists are on equal tier as classical composers, they’re our translators of the Divine. They’re very fortunate to have the immense capacity required to dissect and ingest the universe as they do. It’s humbling, the work that they do, as “Young Stallion” Johnny does, and they are blessed.